DOCUMENT RESUME

ED 068 687 VT 017 187

AUTHOR	Wall, James E.; Shill, James F.
TITLE	Mississippi Research Coordinating Unit for Vocational-Technical Education. Annual Report, Fiscal Year 1972.
INSTITUTION	Mississippi Research Coordinating Unit for Vocational-Technical Education, State College.; Mississippi State Dept. of Education, Jackson. Div. of Vocational and Technical Education.
REPORT NO	R-8003-Admin-Ser-2
PUB DATE	Jul 72
NOTE	38p.
EDRS PRICE	MF-$0.65 HC-$3.29
DESCRIPTORS	Annual Reports; *Career Education; Curriculum Development; Educational Research; *Program Descriptions; Program Evaluation; *Research Coordinating Units; *Research Projects; *Vocational Education
IDENTIFIERS	*Mississippi

ABSTRACT

This annual report for fiscal year 1972 describes the major activities and accomplishments of the Mississippi Research Coordinating Unit for Vocational-Technical Education. During the report period special effort was given to assisting local school systems in implementing programs of career education. Other major programs are summarized and conclusions given. Long-range objectives are progressing on schedule but the uncertainty of funding from year to year presents some planning problems. (MF)

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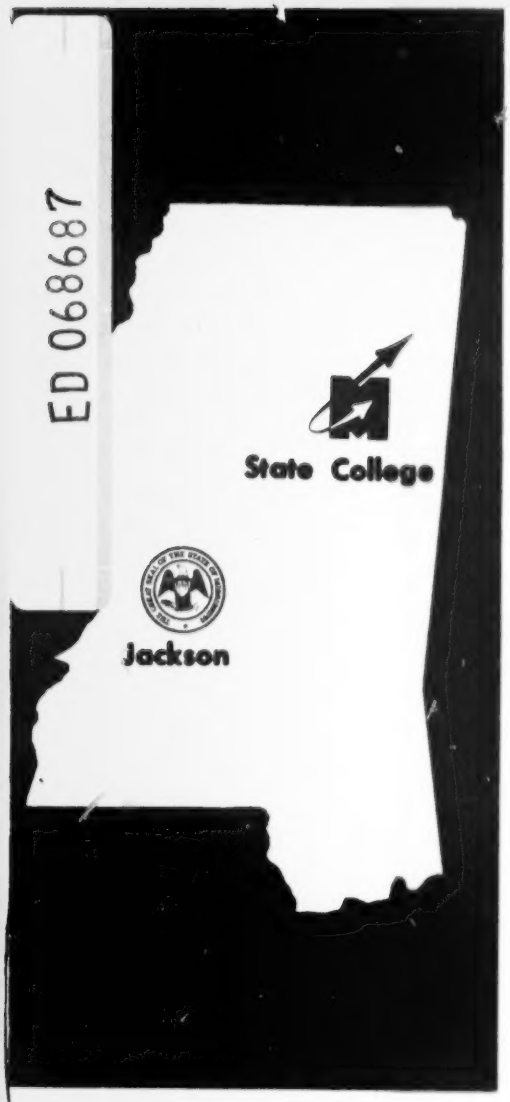

ANNUAL REPORT:

FISCAL YEAR 1972

James E. Wall and James F. Shill

Research Functions

- Stimulate
- Coordinate
- Implement
- Disseminate

AT017187

Research Coordinating Unit
for Vocational & Technical Education

Mississippi State University
College of Education

In Cooperation With
Mississippi Department of Education
Division of Vocational & Technical Education

ED 068687

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Report 8003
Administrative Series 2

July 1972

ANNUAL REPORT

MISSISSIPPI RESEARCH COORDINATING UNIT FOR VOCATIONAL-TECHNICAL EDUCATION

Fiscal Year 1972

James E. Wall and James F. Shill

Research Coordinating Unit for Vocational-Technical Education
College of Education
Mississippi State University

In cooperation with
Division of Vocational and Technical Education
Mississippi State Department of Education

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TABLE OF CONTENTS

		Page
I.	INTRODUCTION	1
II.	STAFF	1
III.	MAJOR ACTIVITIES AND ACCOMPLISHMENTS DURING THIS PERIOD	1
IV.	PROBLEMS	2
V.	SIGNIFICANT FINDINGS AND EVENTS	2
VI.	DISSEMINATION ACTIVITIES	33
VII.	CAPITAL EQUIPMENT ACQUISITION	34
VIII	OTHER ACTIVITIES	34

I. INTRODUCTION

This document is an annual report of the activities of the Mississippi Research Coordinating Unit for Vocational-Technical Education (RCU). The RCU was established under the provisions of the Vocational Education Act of 1963 (P.L. 88-210, Section 4-C) and expanded under the provisions of the Vocational Education Amendments of 1968. The RCU is jointly sponsored by the State Division of Vocational-Technical Education of the Mississippi State Department of Education and the College of Education at Mississippi State University. This report summarizes the period of operation from July 1, 1971, up to June 30, 1972. Consequently, only major activities during the period will be reported.

II. STAFF

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James E. Patton, Ed.D., Research Associate
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Paul Leffler, M.Ed., Graduate Assistant

III. MAJOR ACTIVITIES AND ACCOMPLISHMENTS DURING THIS PERIOD

Activities during this period continued to be focused on ongoing research coordination, stimulation, implementation, and dissemination. Ongoing studies that had been started earlier were completed, and new studies were initiated during this reporting period. Activities completed during this period are reported in Section V. It is assumed that the reader has some knowledge of the Mississippi RCU activities gleaned from previous reports. Therefore, only the more recent activities not completed during FY 72 will be elaborated upon.

A. Career Education Activities. J. Harold McMinn, Ken Morris, James E. Wall and James F. Shill.

During FY 72 a concerted effort involving RCU and State Division personnel was made to give impetus to career education in Mississippi. Local school systems requested assistance in planning, coordinating, and implementing programs of career education throughout their respective school systems. In addition personnel provided assistance in personnel development, curriculum development, materials development, evaluation, and resource management. During this period a large-scale effort was undertaken to inform as many school systems as possible concerning the benefits of implementation

of a career education program. Such media as newspapers, television, radio, professional journals, and newsletters were utilized in this effort.

B. Can Johnny Earn a Living? J. H. McMinn, Ken Morris and James F. Shill.

A 16mm 15 minute color film was produced to aid in the implementation of Career Education in Mississippi. The film was designed to detail the steps in implementing a program and enhance teachers' concepts of career education. The Career Education Exemplary Program in Jones County served as the setting for the film.

The film places heavy emphasis upon demonstrating activities utilized in grades one through twelve to reorient the traditional school concept about occupational education for both students and public. The film shows planning and staff training activities, community support and involvement activities, classroom and field activities, as well as evaluation activities.

C. Monitoring of Funded Research Projects. J. Harold McMinn, James E. Wall, and James F. Shill.

Ongoing activities include assistance in selection and development of research projects to be funded. During the project's duration monitoring activities are conducted.

IV. PROBLEMS

The long-range aims and objectives of the RCU project are on schedule. However, the uncertainty of funding from year to year presents problems in planning.

V. SIGNIFICANT FINDINGS AND EVENTS

During the period, significant findings and events were indicated in the following activities: (A brief summary of each is included.)

A. Evaluation of the Career-Centered Curriculum for Vocational Complexes in Mississippi. James F. Shill and James E. Wall.

Procedure:
The procedure designed to implement the career-centered concept spans all levels of the educational ladder. It places heavy emphasis upon reorientation of the traditional school concept about occupational education. During the process students are exposed to occupational education as they enter the elementary school and continue learning about, and preparing for the

world of work as they progress through elementary, junior high, secondary, and post-secondary schools in the area.

The procedure views the levels of occupational education as being a pyramid, with students making decisions about careers and needed training based upon broad exploratory experiences and counseling obtained through the program. As students narrow their choices about occupational selections, individual occupational experiences become more sophisticated and intensified.

The process begins with the elementary schools providing students with sufficient occupational information and counseling to meet the needs of all children according to their interests and abilities. To accomplish this basic goal, local exemplary program personnel are providing basic services to the elementary faculties. These services include obtaining occupational information, providing counseling, and providing resource persons to be utilized by the elementary faculties. In addition, workshops, seminars, and field trips are held to assist the elementary faculties to incorporate career development into the regular instructional program.

In the junior high school, students expand and intensify their exploratory experiences in the world of work through a specially designed course, Occupational Orientation. In Occupational Orientation, the students' self-awareness of the world of work is increased by capitalizing upon the introduction to occupational information received at the elementary level. The course is designed to provide exploratory experiences in a broad range of occupational categories and levels, with opportunities for students to make comprehensive educational and occupational decisions rather than being forced into limited choices. In the course, the students are brought to grip with self and society, self and occupation, and self and personality development. Throughout the course the students see career development in logical sequenced steps traversing the entire occupational choice process.

The career-centered curriculum at the senior high school level is a continuation of exploratory experiences received by students in the elementary and junior high levels, with additional emphasis being placed on occupational preparation activities. Students receive assistance in planning for and attaining vocational goals and preferences, either in the form of additional vocational training or work experiences. These experiences are obtained by the students through the vocational programs of agriculture, auto mechanics, building trades, cooperative education, consumer home economics, general metal trades, industrial electricity, or office occupations, which are offered either in the three high school attendance

centers or in the area vocational complex.

A concerted remedial program is operated for students who are identified as potential dropouts in conjunction with the exemplary program. This remedial program is equipping potential dropouts with competence and skills necessary for pursuing further vocational training in keeping with their occupational objectives.

Results

A total of 25 new professional level staff positions were utilized in the project during the second year. During the year all personnel were engaged in an intensive in-service training program which enhanced the overall effectiveness of the program. In connection with these activities new materials and techinques were developed.

Elementary teachers in the ten attendance centers worked on curriculum committees which integrated career education materials into the ongoing curriculum. Many new occupational songs, games, plays, etc. were developed for use with elementary students.

Occupational orientation course content was revised to include six rotation areas designed around occupational clusters. This facilitated increased use of team teaching, "hands-on" experiences, field trips, and resource persons.

The cooperative education program made much progress in increasing enrollment and training stations during the second year of operation. Remedial education classes continued to serve students in order to assist them in attaining their educational and occupational objectives. Intensive short-term training was made available to students about to leave school (both those about to drop out and those about to graduate) with salable occupational skills. Placement offices were established and functioned in each of the three combination junior-senior high school and out-of-school types.

Community involvement was at a much greater level than in the previous year. A concerted effort at dissemination and public relations was maintained. Dissemination was accomplished through news media, professional meetings, open house, visits from personnel in other school systems (state, region, and nation), in addition to phone calls and correspondence concerning the project.

Evaluation

The evaluation procedure centers around the use of the program's educational goal and objectives as a standard by which the outcome of the project was assessed. Evaluation activiites for

the first year of operations were centered around the "process." The procedure included data collection; analysis of records and reports; judgments of qualified observers; analysis of instructional materials, techniques, and methods; analysis of equipment and supplies, purchase and utilization; analysis of program activities; and analysis of opinions of program staff, State Division of Vocational and Technical Education personnel, consultants, school system faculty and administration, parents, and students.

The evaluation analysis indicated that all recommendations made during the first year of operation by the third party evaluation contractor were implemented during the second year of operation. Approximately 39 percent of all the school system's students (grades 7-12) were enrolled in occupational preparation programs (agriculture, building trades, business and office, etc.).
During the second year of operation, progress was made in "fusing" the career-centered concept into the ongoing curriculum at the elementary level. Inservice activities continued at a high level for all project personnel. Changes were made in the occupational orientation course which provided for greater use of team teaching. This resulted in the increase in the number of "hands-on" occupational experiences students received.
The use of pre-test and post-test instruments indicated approximately a 40 percent increase in occupational knowledge in a six weeks period. Exemplary program students consistently rated higher in occupation knowledge than did comparison groups.

Placement centers were established at each of the junior-senior high school attendance centers, and in-school and out-of-school placement occurred.

Remedial courses contained maximum enrollments. An intensive short-term skill training program for those about to leave school (both by graduation and dropping out) without occupational skills was implemented during the second year of the program's operation. Special emphasis was placed on dropout-prone students by this intensive skill training program.

Upon analysis of evaluative data, it was concluded that the project was making progress toward the attainment of its goal and objectives and should be funded for the third year of operation.

Conclusions and Recommendations:
By the end of the second year of the project's operation, additional insights into the operational facet of the career-centered concept had been gained. Information provided by the first and second year of operation provided for a smooth implementation of the career-centered concept in four additional

school systems in the State. The most successful components of the project enhanced the immediate accomplishment of objectives established by the other school systems.

It was concluded that important progress was made by the project during the year in assisting students in developing skills which would enable them to adjust to changes within the world of work. In addition, progress was made in assisting students in developing psychological skills and occupational skills which will serve as a base for continuous growth and advancement in chosen careers.

Satisfactory progress was made during the second year of operation toward meeting the project's objectives. Two objectives, (1) implementation of short-term intensive skill training for students about to leave school without salable skills and (2) establishment of placement offices, which had not been implemented during the first year of operation were implemented during the second year. All phases of the project are in operation and making satisfactory progress toward fusing the career-centered concept into the school system.

Recommendations resulting from the second year's report are as follows:

* Funding should be continued for the third year of operation.

* Continued emphasis should be placed on providing remedial education classes for all students needing this service.

* Continued emphasis should be given to making the project an integral part of the ongoing school system's activities.

* Curriculum guides (grades 1-12) should be refined and printed in sufficient quantities to provide copies for other school systems.

* Additional student recruitment activities for all vocational courses should be conducted.

* A feasibility study on providing additional vocational offerings for the school districts should be conducted.

* Continued emphasis should be placed on providing short-term intensive skill training for dropout-prone students.

* Placement services should be continued and expanded.

* Public relations activities connected with the program should be continued.

* Intensive inservice training for project personnel should be continued.

* Plans should be finalized for the continuation of the program as Exemplary Funds are phased out.

B. Strategies for Effecting Change in Vocational and Technical Education: Review and Synthesis. James E. Wall

The foregoing material has centered around discussions of a rationale for planned change, the change process, and alternate strategies for implementing change. No attempt has been made to list the many innovations which have been implemented in vocational and technical education programs in recent years. Instead, the material has focused upon a basis for innovation, the myriad of principles and procedures applicable to the innovation or planned change process, and the many strategies for change implementation.

Should a "laundry list" of recent innovations be desired by the reader, he is referred first of all to the documents of the Educational Resources Information Center (ERIC), including the Abstracts of Research Materials in Vocational and Technical Education (ARM) and Abstracts of Instructional Materials in Vocational and Technical Education (AIM) compiled and distributed by the Center for Vocational and Technical Education at The Ohio State University. Secondly, the reader is referred to publications of the U.S. Office of Education, many of which describe in detail the innovations and changes which have been brought about through specifically funded programs in research, development, demonstration, and pilot projects. Most of the information dealing with these projects has been placed in the ERIC system. Thirdly, the reader is referred to the vast array of innovation descriptions contained in journal and/or periodical literature.

The writer purposely has not dwelt at length on the many aspects of resistance to change, chiefly because of an inherent belief that, if properly motivated and assisted, people have a strong propensity to change, to become committed to providing opportunities for a better education for all persons. The writer chose not to fall into the naive blunder of thinking that the problem of nonacceptance of an innovation lies totally with the person who resists change. It conceivably might be the other way around; i.e., the would-be proponent or change agent might be the real block to acceptance of innovation and change, for not all educators are haters of new things or ideas.

Similarly, the writer did not treat in depth the costs of innovation and change because "the only thing more costly than a good education is a poor one." Change usually cannot be effected inexpensively.

However, the seriousness of both resistance and cost, as factors influencing change, is recognized. Any consideration of change and changing usually leads rapidly to a discussion of costs.

Costs frequently are discussed before anything else about innovation, and just as frequently such discussions result in premature judgments against implementing an innovation. Resistance to an innovation frequently relates to premature judgments regarding costs or other factors. Not only is cost an important element in a change strategy, but the timing of discussion concerning cost is equally as important. Carlson (1965) indicated that research among schools in a county in western Pennsylvania revealed that "amount of money spent per child had no predictive power in relation to the rate of adoption" of innovations such as team teaching, modern math, foreign language instruction in elementary grades, and programmed instruction.

Most of the models and strategies reviewed in this document stress the importance of cost considerations, especially the model of Havelock (1970).

Reemphasis of Local Initiative in Planned Change

During the past few years there seems to have emerged a nationwide trend toward placing greater emphasis on local initiative for educational, economic, industrial, and general community development and improvement activities. There seems to be emerging a reemphasis toward greater local management by local boards, committees, and councils in all development activities and planning. These trends tend to foster more support from local government and private sources for local initiative programs. The objective apparently is to develop local institutions, including the institution of education, into well-established sets of principles, activities, and commitments with viable structures of their own in each local setting or community. Each local institution would be sustained by strong local roots.

Achieving this objective will require federal and state agencies, especially educational agencies, to become less directive and more supportive of the continuing process of institutional change at the local level. This means that federal, regional, state, and district educational agencies must make stronger efforts to assist local school systems in designing and implementing their own locally planned and initiated change strategies.

At least three basic elements are necessary to such efforts. First, each school system must conduct regular internal self-assessment, i.e., continuous locally initiated, state supported, and coordinated evaluation, such as that described by Byram (1971). Second, each school system must assume a staff-development posture and orientation so that each educator becomes a change agent or an agent of change. Third, each school system must establish interactional linkages with agencies which can help improve the flow of information on: (1) federal and state legislation; (2) program improvements-changes-innovations; and (3) research

and curriculum development resources.

Local school systems need more than monetary assistance to accomplish these three basic elements. They need help from state staffs and teacher education departments in developing internal change agents and in establishing communication linkages with external change agents. Each internal and external change agent needs to understand that his success must be measured by the integrity of the changes he seeks to implement and the strategies he uses to get the job done, not merely by the sheer numbers of supporters he enlists. He should strive to achieve a better understanding of the changes he wishes to implement, not to promote the idea of change merely for the sake of change. He must be able to do more than merely identify and work with opinion leaders; he must be concerned with the personality structure and psychological capacity for growth and change that is exhibited by each educator in the client system. In addition, the change agent must be concerned with the total milieu or setting in which individual educator personalities reside. This is a must because the actions, interactions, reactions, and behavior of any person cannot be fully observed or analyzed apart from their relationship to the institutional matrix in which they occur. Said another way, any particular planned change effort will be greatly influenced by conditions that exist in the local school system and in its local community. The environment and the educational decisions which emerge from it are inseparable. The environment indicates the kinds of changes which are necessary, while also setting the limits on change policy.

Coordinative Linkages

Implicit in all of the foregoing material in this document is the need for improved coordination of vocational-technical education change activities among and between the various levels of the educational structure-federal, regional, state, district, local, building, and classroom levels. By coordination is meant, among other things, information flow and feedback; assistance between levels in upgrading and improvement of personnel capabilities; cooperative approaches to change policy determination; and, above all, assistance in local level planning-implementation-evaluation of vocational-technical education programs.

In the end, the primary focus must always be on developing local vocational-technical programs which are continuously innovative and self-renewing. Change efforts must always be focused on improving what the teacher does and how he does what he does. It must be simultaneously recognized that the local school system superintendent and building principal, as "gate-keepers," essentially set the climate or tone for change.

C. Images and Perceptions of Vocational Agriculture Programs in Mississippi. R. Glenn Shoemake.

This report presents the perceptions and images of administrators, school board members, vocational agriculture teachers, and secondary school students, toward selected phases of the vocational agriculture program in Mississippi. It represents those persons assigned the tasks of administering, conducting, and actually applying the concepts taught in the vocational agriculture program.

From the data collected in the study, the following generalizations were drawn:

1. Administrators' perceptions of the vocational agriculture program were lower than other groups included in the study.

2. School board members' perceptions of the vocational agriculture program were generally higher than that of administrators, but were generally lower than the perceptions of vocational agriculture teachers.

3. Secondary school students' perceptions of the curricular phase of the vocational agriculture program were considered adequate.

4. Vocational agriculture students generally viewed the curriculum as being adequate to a lesser extent than did other groups.

5. Nonvocational agriculture students generally perceived the program as being more adequate than did vocational agriculture students.

6. Vocational agriculture teachers' images of the program were higher than those of other groups in the study.

7. Administrators, school board members, and vocational agriculture teachers viewed the policy for vocational agriculture as being sufficient.

8. Each group perceived current policy for vocational agriculture as adequate; however, there were indications that a lack of communication and clarity toward certain policy items existed among echelons who administer the program.

9. All phases of the vocational agriculture curriculum were viewed as being adequate, but at different degrees.

10. The agribusiness curriculum component was perceived as the least adequate, which is probably due to the fact that only a small percentage of the students were receiving experiences in agribusiness.

11. The production agriculture curriculum component was viewed as the most adequate and up-to-date.

It was found that groups viewed the vocational agriculture program as sufficient in those areas appraised. The data disclosed that there were certain areas of the vocational agriculture program that need enhancement. Some of these are as follows:

1. Free flowing ideas and communication of groups charged with the task of administering the vocational agriculture program should be a primary concern.

2. A current policy guide should be developed and distributed to all persons involved with the vocational agriculture program.

3. Increased emphasis should be placed upon the agribusiness curriculum component in most vocational agriculture programs.

4. Overall aims, objectives, and procedures of the program should be publicized throughout the state.

5. The future needs of students in Mississippi schools should be assessed and considered for future changes or reemphasis for the program.

6. All future program planning should include all persons involved with the program, whether administrator, teacher, or school board member.

7. Future Farmer of America objectives should be evaluated as to meeting the needs of the students served.

8. State and local personnel should work more closely in establishing and attaining program objectives.

It is evident from this study that there are certain aspects of the vocational agriculture program that need to be given priority in the future. This study indicates that local attitudes and opinions can be of utmost importance for future development and implementation of redirected or new vocational agriculture program objectives.

D. Factors Related to the Coordination and Effectiveness of Occupational Education Programs. John T. Pelham.

The original design of this study called for a survey of all training programs operating in every county in Mississippi and the enrollment in each. Chamber of commerce officials in 104 communities were contacted via mailed questionnaires which asked for data on the extent and nature of coordination between the training programs in their communities. They were also asked to evaluate the effectiveness of job training programs in meeting local community needs. Returns from these questionnaires were inadequate in both number (approximately 31 percent) and information (many were incomplete in whole or in part) to conduct the kind of survey study originally intended. What was suggested by the inability of so many community leaders to speak with knowledge on job training efforts was the need for in-depth research of the process of job creation, job training, and job placement. The configuration of these efforts was termed the manpower development process and the case study technique was utilized to study it.

The chief source of data was personal interviews with community leaders, agency representatives, and major employers in the four study communities. The interviews were conducted over a period of five months during which the author spent a minimum of one week in each community conducting interviews in the communities, attending meetings of relevant groups, analyzing newspaper content, and engaging in participant observation. The key informant technique was used to guide the interviewing procedure.

Chamber of commerce or community development association officials were asked to provide the names of individuals in the community who, by virtue of their community leadership positions or by agency affiliation, were knowledgeable about the various phases of the manpower development process. A total of 84 informants in the four communities provided information about the manpower development process from their perspectives.

Three interview schedules were used in gathering the data. One, called a General Schedule, was administered to everyone interviewed. In addition to the general schedule, two supplements designed to elicit more detailed information on agency programs and employer needs and program usage were administered to agency representatives and employers. All interviews were conducted by the author and ranged in length from 30 minutes to more than four hours, depending in large part on whether or not a supplement was administered. The modal interview length was approximately one and one-half hours.

Results

The two communities with the largest employment levels also were characterized by greater ease of placement and greater reported use of training agencies by employers. Both of the communities' job creation efforts were quite obviously the outgrowth of well articulated rationales, or strategies. In Coastal City development emphases have been on blue-chip, water-related industry. Rapid increases in these jobs have not been accompanied by concomitant increases in sales and services and in jobs requiring lower skill levels. Growth in Hill City has been more gradual and more comprehensive. As a result, occupational diversity has been greater in terms of skill requirements and industrial types.

In terms of leadership activities, Hill City and Camellia City exceeded the other communities in the involvement of the same key leaders in both job creation and job training efforts. The overlapping nature of leadership in these communities contributed to the finding that such efforts were more highly coordinated than in Coastal and Delta Cities.

Efforts to coordinate job training programs were found to exist to some extent in all but Coastal City. As indicated above, coordination in Hill and Camellia Cities was largely the result of overlapping memberships on advisory boards and committees. A committee sponsored by the local chamber of commerce in Delta City had been charged with attempting to bring voluntary coordination. The committee had not been active long enough to have produced significant results.

Job training diversity was greater in Delta and Coastal Cities than in Hill and Camellia. Diversity in Coastal City was geared to meet the training needs of industry. The greater number of programs in Delta City was geared to meeting the needs of the unemployed and underemployed. The primary role of training in Hill and Camellia Cities was that of providing up-grading training for local employees and employers.

Evaluation

The model used to study the complex nature of manpower development was found to be quite useful in studying the relationships between job creation, job training, and placement efforts in the community context. It provides a format whereby various community factors which have great relevancy for manpower development may be studied. It also allows for the consideration of other phases of manpower development. Suggested modifications of the model are included in the body of the report.

Conclusions and Recommendations

The recommendations which follow are based on the results and conclusions summarized above and are expanded in the body of this report. These recommendations point up changes needed in current manpower development practices, specifically those directly involving vocational-technical education. In some cases the generic term "job training agencies" is used to point up the need for all such efforts to be altered in a specified way. These recommendations are given more elaboration in the final chapter of the report.

1. Job training agencies must come to know each other and be aware of each other's service offerings.

2. Members of the so-called "power structure" must be aware of job training programs in the community and what they are doing.

3. Increased efforts should be made at including community leaders and major employers on advisory and executive committees and boards.

4. Formal evaluation procedures of secondary and post-secondary vo-tech centers should include a well-conceived section requesting information from local employers.

5. Advisory and craft committees must be given more responsibility than is currently the case.

6. Administrative and fiscal flexibility at the local level should be maximized.

7. Training should be available in the skills needed most in a locale, even if these are on a restricted list.

8. Courses should be sufficiently flexible in scheduling to allow for easy entry and exit throughout the year.

9. Job training agencies operating in areas of low employment levels must do a more thorough job of defining their roles in the community.

10. Upper-level administrators of vocational education should be encouraged to finance more interdisciplinary research, symposia, and other learning experiences.

E. Developing a Housing Education Curriculum for Tenants Who Moved From Substandard Housing to Modern Rent Supplement or Public Housing Units. Mary W. Crocker, Martha J. Mims, and Mary E. Pope.

The purpose of this study was to collect data to serve as a basis for developing a housing education curriculum for tenants who move from substandard housing to rent supplement or public housing. The development of the curriculum resulted from a series of experiences: a pilot homemaker training program, a survey of tenant training programs in Mississippi, a survey of rent supplement managers in Mississippi, and visits to housing projects in various sections of Mississippi.

The pilot homemaker program was held at Morningside Apartments in Columbus, Mississippi, with twenty homemakers. A graduate student, under the supervision of two Mississippi State College for Women home economics faculty members, taught the classes. The homemakers were interviewed and the appearance of their homes rated, using schedules developed for the research project. After the classes were held, the homemakers evaluated the sessions. Approximately a year later, eight of the homemakers were visited again and asked to evaluate the lessons.

Tenant training programs in Mississippi were surveyed to learn how many projects had tenant training programs, who did the teaching, how the training was financed, subject matter for the training, length of the programs, and success of the programs.

Rent supplement managers were sent questionnaires for the researchers to gain information regarding management problems, building materials, appliances, design features, and tenant training. Fourteen of seventeen questionnaires were answered and returned.

Fifteen housing projects in different sections of the state were visited by two housing specialists to note the exterior design, floor plan, building materials, appliances, and the general appearance of the project and apartments selected by the managers. The following format was used for the curriculum:

Lesson Title:

Objective(s): the overall objective(s) of the lesson.

Desired Learning Outcomes: the specific behavioral outcome describing how the homemakers should perform at the end of each lesson.

Instructional Aids: a check list of demonstration supplies, display items, illustrative materials, etc. which the instructor will need for each lesson.

Handouts: the instruction sheets and publications which are recommended for distribution to the homemakers.

Instructor References: the references which are recommended for the teacher's use only.

Motivation: a game or other device for introducing the lesson and aiding the homemakers in realizing the need for information which will be given.

Plan of Presentation: an outline of the suggested learning activities.

The findings of the study indicated that tenant training programs were needed. Funds are available for tenant training in public housing under the 4200 account series. Social services may be purchased through Title IV-A and Title XVI of the Social Security Act. The procedure for securing funds for tenant counseling in rent supplement housing is outlined in circular HM 4381-1 SUPP2. Limited assistance for both housing programs may be available through the local Extension Home Economist's office.

The curriculum developed for this project was designed to be used by an adult leader or a home economist in providing tenant training in public housing and rent supplement housing units. However, the information would also be appropriate for use with new homeowners associated with the interest-subsidy program.

The writers recommend that the curriculum be tested with several pilot programs in different sections of the state and then revised if the evaluations indicate a revision is needed.

F. Vocational-Technical Training Needs in the Pearl River Junior College District 1972-1980. D. C. Williams and T. O. McClendon.

The basic objective undertaken in this study was to recommend certain vocational-technical training programs to be considered by Pearl River Junior College for inclusion in their overall vocational-technical program make-up. More specifically, this objective consisted of:

1. projecting total employment by occupation by industry through 1980;

2. estimating the number of new job opportunities available annually, by occupation within the District; and

3. recommending that Pearl River Junior College consider offering certain vocational-technical training programs to help fulfill the training requirements inherent in filling the estimated new job vacancies.

Additional objectives were to (1) identify vocational-technical programs in areas with some, but insufficient, new job opportunities becoming available to justify the program and (2) identify what interest (if any) high school students within the District had in vocational-technical training.

The first step in ascertaining the recommended programs was to project employment by industry within the District through 1980. These projections were made from historical data collected from the Mississippi Employment Security Commission utilizing the computer to evaluate both linear and non-linear relationships. A survey of major employers was conducted to obtain data on current industrial activity, and the employment projections were modified on the basis of current activity which could influence a rate of growth different from the past. Once the projections were finalized, estimates of employment by major occupations were computed by applying the industry occupational matrix ratios, developed by the United States Department of Labor, to the employment by industry projections. The average annual change in employment by major occupation was computed and adjusted for death and retirement factors. These average annual changes or the average numbers of new jobs by major occupation becoming available within the District each year was related to specific vocational-technical programs. Any programs showing 15 or more new job opportunities were recommended.

After the recommended programs were determined several programs remained with sufficient job opportunities becoming available to warrant further consideration based on additional criteria. These programs were listed as marginal programs.

High school juniors and seniors (potential vocational-technical students) within the District were surveyed by questionnaire to determine their interest in specific vocational-technical training programs. The questionnaire was developed by the Bureau of Business Research and administered by the students' respective principal or counselor.

Results and Accomplishments

In this study, an attempt was made to assist Pearl River Junior College in planning its vocational-technical program offering and to further develop and refine procedures to project or forecast new job opportunities becoming available within a given area or district. Based on an estimated need for 15 or more new employees per year in given occupations, certain vocational-technical programs were recommended. This recommendation contained 30 vocational-technical programs; thirteen of which are not presently offered at the college. Only three programs presently offered by the college were not contained in the recommended group. This report does not recommend that these three programs be discontinued, but that an analysis be made in which all

available factors are considered in the decision to continue or discontinue them. Twelve programs were classified as "marginal" programs. These programs should be considered by careful analysis of all justifying criteria.

Almost 32 percent of the high school students surveyed were undecided on which type of training to seek after they completed high school. While 29 percent of them inferred that they preferred academic training, 28 percent indicated that they preferred vocational-technical programs. The remaining 11 percent did not respond.

Evaluation

The vocational-technical programs recommended in this study are based on the estimated number of new jobs becoming available within the district each year. In recommending these programs, no consideration was given to employment opportunities outside of the District nor to programs that can be offered at one junior college on a statewide basis. Also, no effort was made to incorporate the educational and training desires of the students, parents, or citizens of the District into the recommendations. Consequently, care should be taken not to look upon the results as the final program offering, but to use them in conjunction with other criteria in establishing the long-term vocational-technical program.

Additionally, the new job opportunities used to determine recommended programs are based on projections of historical data representing the present industrial mix, industry occupational matrix ratios, and death and retirement rates. None of these are static. The industrial mix changes; and the ratios and rates are periodically updated. Therefore, these conditions should be monitored, and when conditions warrant, this study should be updated.

Conclusions and Recommendations

Many of the business officials interviewed felt that better coordination was needed between the college and industrial concerns. Also, many of them felt that certain deficiencies exist in vocational-technical program graduates' attitude toward business. It is believed that these problems could be overcome by establishing a counselor/coordinator position within the vocational-technical department. The purpose of this position would be to coordinate the college's program offering and program curriculum to current business needs for skilled employees and to counsel students and prospective students on current business needs and attitudes toward the vocational-technical graduate.

Additionally, it was concluded that the procedures described under the Procedures and Methodology section of this report are

reasonable procedures for determining the recommended programs and developing the supporting data. However, it is felt that both the employer and student survey sample size could be reduced without effectively reducing the value of the report.

Projections of occupational needs were made to the year 1980. Many factors could change during this period of time, thus making the projections invalid. Consequently, these projections of occupational requirements within the District should be viewed only as an indication of the probable level of new job opportunities. It is recommended that additional projections be considered as basic underlying factors change. For example, the employment data could be updated and the projections reviewed every two or three years. Such re-evaluation is necessary to keep current and planned vocational-technical programs consistent with the needs of the people and of businesses within the District.

G. Core Curriculum for Agriculture and Agribusiness on All Levels of Education. O. L. Snowden, J. R. Hamilton, R. G. Shoemake, and T. D. Phillips.

In undertaking the project several assumptions were made about the vocational agriculture programs in Mississippi. It was assumed that vocational agriculture students were being trained in the areas designated by the Office of Health, Education, and Welfare. It was further hypothesized that individuals engaged in or preparing for agricultural or agri-related occupations were capable of evaluating the comprehensive needs of their chosen occupation and environment. It was also assumed that teachers and administrators were aware of the overall agricultural needs of their school, community, and its citizenry.

In the design of the methodology used in this research, utilization of a genuine sample of the State's population serving the sector of economy directly associated with agricultural and agri-related occupations was involved. Whereas in the past only school personnel were involved in preparing the courses taught in agriculture. Moreover, these courses were confined mostly to secondary school grades and adult classes in the area of production agriculture. This project was designed to obtain and make use of the opinions of not only vocational agriculture teachers but also: (1) the school principals and superintendents, (2) agribusinessmen, (3) adult and young farmers, and (4) secondary school students enrolled in the agricultural courses being offered.

There were four main steps used in securing data for accomplishing the objectives for the study. First, after a careful review of literature, a questionnaire was constructed to gather responses from the groups previously mentioned. This questionnaire included six areas of subject matter normally taught by vocational agriculture teachers. These areas were: (1) animal science,

(2) plant science, (3) soil science, (4) agricultural business management, (5) leadership development, and (6) agricultural mechanics. This instrument was developed to appraise the knowledge and skill areas needed by the interviewees in two aspects, vocational and environmental.

Secondly, a twenty percent random stratified sample of counties in the eight economic areas of Mississippi was taken. After the selection of sixteen counties within the State, lists of agribusinesses, schools, and school personnel were compiled for each county included in the study. After compilation of the lists, contacts were made with a cross-section of the businesses, the educational personnel (superintendents, principals, and vocational agriculture teachers) via mail to obtain their willingness or unwillingness to participate in the study. After receiving a positive response, appointments were made and reactions were gathered from the different groups with the help of local vocational agriculture personnel. A total of 262 agribusiness personnel, 122 educational personnel, 200 farmers, and 712 students responded to the basic questionnaire.

During the period used to summarize the data from the basic instrument, a second questionnaire was developed to appraise the different methods of teaching and several types of differentiated staffing patterns for implementing the Agribusiness, Natural Resources, and Environmental Control Occupations service area in career education. A total of 22 secondary and post-secondary teachers of agriculture responded to the questionnaire.

Once the data were summarized, a third data gathering instrument was constructed. This instrument was developed by both project staff and noted persons from the respective knowledge and skill areas. An outline of different subject matter for each area in the basic instrument was compiled. The model for career education developed by the Office of Health, Education, and Welfare was used as a basic guide. This material was developed for four different levels which are: Level I -- Elementary, including grades K-6; Level II -- Junior High, including grades 7-8; Level III -- Senior High, including grades 9-12; and Level IV -- Post-Secondary, including grades 13-14. Upon completion of the questionnaire, a jury composed of vocational directors, county superintendents, principals, vocational agriculture teachers, state supervisory personnel, and curriculum specialists were contacted and asked to respond to the instrument. These respondents were asked if this material could and should be taught on the proposed levels in career education. A total of 27 persons reacted to the instrument.

Findings

The study revealed the following outstanding characteristics of agribusiness personnel. They were (1) approximately 40 percent of the agribusiness personnel included in the study were managers;

(2) the smallest percentage (1.91 percent) were unskilled workers; (3) the greatest number (167) of the agribusiness personnel had gained their training on the job; (4) only two (.76 percent) had gained their training in post-secondary trade schools; and (5) above 80 percent of the persons had a farm background.

Characteristics of the educational personnel included (1) above 30 percent were vocational agriculture teachers; (2) 37 of the educational personnel held titles other than principals or superintendents with a great percentage of them being administrative assistants and/or vocational program coordinators; (3) above 25 percent were principals; (4) 9 were superintendents; (5) 65.57 percent of the personnel were working in a county unit system with more than 1500 pupils; and (6) more than 74 percent had farm backgrounds.

Characteristics of farmers revealed: (1) the greatest percentage (42.50 percent) included in the study were beef cattle farmers; (2) almost 40 percent were row-crop farmers; (3) 28 percent owned farms larger than 500 acres; (4) 25 percent owned farms less than 100 acres in size; (5) 35.5 percent of the farmers indicated having had three or more years of vocational agriculture in high school; while 34.5 percent reported having no vocational agriculture training while in high school; and (6) 88.5 percent of the farmers had farm backgrounds.

Characteristics of students included in the study were: (1) 32.02 percent had two years of vocational training; (2) 24.44 percent had three or more years of vocational agriculture training; (3) 64.75 percent of the students had farm backgrounds; (4) 23.17 percent of the students had gained agricultural experience via a full-time farm; (5) 49.58 percent of the students indicated gaining agricultural experience on a part-time farm; and (6) 5.06 percent of the students had experience in agribusiness.

Curricular Appraisal

The first aspect to be considered was the vocational aspect of the curriculum. All groups included in the study agreed that the agricultural business management module was more essential in both the vocational and environmental aspects of the curriculum, but at different degrees. Items within this module receiving the higher ratings were: (1) marketing (buying and selling); (2) accounting and money management; and (3) budgeting. Items within this module tended to receive highly significant and significant ratings from all groups for both the vocational and environmental aspects of the curriculum.

Farmers and school personnel tended to rate the modules in plant science, soil science, and animal science higher than did agribusiness personnel and students. Certain areas within the

agricultural mechanics module (operating farm machinery and power mechanics) were considered more important by agribusiness personnel, educational personnel, and farmers.

The module receiving the lowest rating in the vocational aspect of the curriculum was leadership development. Ratings for this module ranged from slightly significant to significant. Thus, it was evident that ratings for all the modules were fairly close. None of the items within any module received a rating of insignificant (1.50 - 1.0). In appraising the vocational aspect of the curriculum ratings of agribusiness personnel and students tended to be lower than ratings of the farmers and educational personnel. It must be remembered, as was found in this study, that agribusinesses are dependent upon the farmers and that without production agriculture there is little if any agribusiness in the said area.

In appraising the environmental aspect of the curriculum the same groups and items were used. Again as was previously mentioned, the agricultural business management module was deemed the most important of the six appraised. The animal science module followed the aforementioned module in importance. Only two items within this module rated above 2.1 (significant). Thus, ratings for the environmental aspect of the curriculum tended to be somewhat lower than those of the vocational aspect. The module receiving the lowest rating for the environmental aspect was soil science, with ratings of slightly significant (1.51 - 2.0). Thus, no item received ratings of insignificant. Generally, the ratings of the agribusiness personnel tended to be lower than ratings of other groups included in the study.

None of the items included in the appraisal received an insignificant rating in either aspect of the curriculum. Thus, all items could be included in the curriculum, but some would receive less emphasis in the skill development period.

It must be remembered that the staffing patterns appraised were evaluated for their workability and/or efficiency in implementing the Agribusiness, Natural Resources and Environmental Control Occupations service area in career education. It was the opinion of those questioned that some form of differentiated staffing would be necessary. The pattern receiving the highest rating was: a curriculum council composed of specialists who develop curricular materials, tests, etc., and a master teacher who supervises the teacher instructors who are aided by non-credentialed instructional and technical assistants could effectively implement and carry out a total program of vocational education in a school system. It was the opinion of the teachers that a one teacher agricultural department could not coordinate the implementation of the Agribusiness, Natural Resources and Environmental Control Occupations service area in career education and properly carry out his other teaching and supervisory duties.

Teachers' reactions to the different methods of teaching were that most innovative types of teaching could help maximize the achievement of educational objectives. Teachers' reactions pointed to the fact that the total curriculum should be arranged in small detailed units or modules to enhance the teaching-learning process. The reaction to the lecture method of teaching received the lowest rating.

The reactions of the jury to the outlined material for inclusion in the career education curriculum were very positive. In fact, all items for each level received ratings of a mean of 4.21 or better out of a possible 5 (strongly agree) with the exception of 4 items. Thus, all items proposed in the curriculum should be included, but some items should have more emphasis than others. The jury of experts was not asked to react to who should teach each area. The results of the summary of opinions of the jury indicate that this material and/or experiences should be a part of the curriculum for persons planning careers in agricultural or agri-related occupations.

H. Feasibility of Interagency Cooperation in Providing Welfare Recipients Employment Through Vocational Training. W. T. Taylor.

The Welfare Department screened some 114 Aid to Dependent Children mothers, and 59 individuals were determined appropriate for referral for the job training program.

These individuals came into the Pontotoc County Welfare Office for personal interviews with the Adult Service Worker who explained the job training program and re-evaluated the appropriateness of each. Twenty-nine individuals showed interest in the program and were notified to report for testing at the Pontotoc Ridge Area Vocational Technical Training Center on February 18, 1972.

On April 10, 1972, twenty (20) ADC mothers began job training for three hours a day, five days a week, for a period of twelve (12) weeks, totaling 180 hours of skill training and remedial work. There were six trainees in Child Care and fourteen (14) trainees in Needlework. The Needlework group had one hour of remedial work at the beginning of each class, followed by two hours of skilled training on industrial sewing machines.

After learning to turn on and adjust the sewing machine for doing straight stitching, activities in the class included making pillowcases, handbags, dresses, and near the end of the project, sewing upholstery materials.

The child care group had two hours of skill training at the beginning of each class, followed by one hour of remedial work. Child care activities included caring for infants, bathing and feeding, etc. Methods and types of games were used for play

activities. Small children were brought to class on various occasions for actual child care activities and for instructor's demonstration. No significant difference of training results were noted to this scheduling procedure.

In general, most of the trainees accepted the training very well and were eager to learn the remedial work as well as the skill training. One trainee was very enthusiastic when she mastered the task of signing her own name for the first time in her life.

Due to the small number of trainees of this type available, it is doubtful that more than one or two programs of this nature would be successful in an area the size of Pontotoc County.

It is evident, however, that the success of such a program depends on a competent staff willing to go the "second mile" and the cooperation of industrial personnel who understand the need of training individuals in this category so they can become useful citizens. Cooperation among the inter-agencies involved is a "must."

I. A Program for Early Detection and Attitudinal Reorientation of Potential School Dropouts. Daniel L. Randolph and William R. Holmes.

The purpose of the study was to develop and to partially validate an instrument to be utilized in the identification of potential school dropouts. This involved: (1) collecting and categorizing characteristics of potential dropouts in such a way that they could be incorporated into a single instrument, (2) refining the instrument through factor analysis, (3) establishing partial validity for the initial form of the instrument, (4) determining the reliability of the PDI, (5) establishing preliminary norms for use in the identification of potential dropouts.

Thirty judges were asked to evaluate the pool of items which had been collected for the Potential Dropout Instrument (PDI). Based upon the judges' evaluations, all of the items of the first section of the PDI seemed to possess face validity. However, eight of the behavioral items in the second section of the PDI received poor ratings by the judges and were deleted. The remaining items of the second section (49 items) of the PDI were assumed to possess face validity, and were given to 18 upper elementary school teachers in Forrest County, Mississippi, to obtain ratings on the behavior of their pupils.

The responses of the teachers on the preliminary forms of the PDI (49 items) were factor analyzed. Based upon these results, the preliminary form of section two of the PDI was refined from 49 items to 39 items. The refined form of the PDI (39 items)

was then given to three upper elementary teachers in Forrest County, Mississippi, who rated the behavior of each of their pupils (88). The teachers also responded to the Teacher's Opinion Item for each child. The Teacher's Opinion Item was one of the criteria used in the partial validation procedure. The other was the Demos D Scale, which was administered to each of the 88 pupils.

Partial validation was established by calculating the correlations between the scores on the refined form of the PDI and the Teacher's Opinion Item, and the PDI and the Demos D Scale. On the basis of the Demos D Scale total score and the Teacher's Opinion Item, the total sample was divided into two groups: (1) potential school dropouts (28), and (2) non-potential school dropouts (60). The correlations between group membership and factor scores on the PDI were calculated to determine how well the PDI scores discriminated between the two groups. The Alpha Coefficient was utilized to examine the internal consistency of the PDI, and the means and standard deviations for the total sample and the two sub-groups on the PDI were reported on.

Studies dealing with the identification of potential dropouts have given ample evidence that factors, such as the five identified above, could be expected to exist in an instrument designed to identify potential school dropouts. Although potential dropouts are not always discipline problems, they do often exhibit overt disruptive behavior. Factor I, Overt Disruptive Behavior (ODB), had the most obvious interpretation of all the factors, and seems to be an important variable to consider in the identification of potential dropouts.

The Insecurity - Withdrawal (I-W) factor, which is factor II, seems to indicate that the potential dropout may experience more feelings of inadequacy than the child who is not a potential dropout. The potential dropout tends to withdraw from the company of his peers and does not participate in school activities. He seems to feel insecure with those of his own age and prefers to play alone.

Factor III, Lack of Goal Orientation (LGO),appears to be measuring the child's "willingness to try." It may be referred to as motivation or goal orientation. It seems that the potential dropout may experience depression which the teacher interprets as indifference toward school in general.

Factor IV, Antisocial(AS), is related to rebellious acts and attitudes, which may be related to delinquency. However, it is probably not that serious. This factor indicates a dislike for school, and the rules that govern one's daily life.

The last factor, factor V, Peer Interaction (PI), seems to be related to one's peer relations. The interaction of the potential dropout with his peers is of a negative nature. He gets negative reactions from his peers, complains that they mistreat him, and he is subjected to teasing by them.

All of the correlations between the scores on the PDI and the Teacher's Opinion Item were significant beyond the .001 level with magnitudes ranging from .38 to .66. These correlations seem to be meaningful and indicate that those things which influence the teacher's opinion of a child's chances of dropping out of school were significantly represented by the items of the PDI. The Lack of Goal Orientation factor of the PDI had the highest correlation with the Teacher's Opinion Item (.66). This seems to mean that the child who lacks motivation and/or a "willingness to try" tends to be identified quicker as a potential dropout by the teacher than the child who may be characterized by some of the other factors of the PDI.

Seventeen of the thirty intercorrelations between the PDI scores and the Demos D Scale scores were significant, but the magnitudes of these coefficients range from only .22 to 138. Therefore, it was assumed that the Demos D Scale was measuring something other than what the PDI was measuring, except for a small overlap. The Demos D Scale was designed to measure the attitudes of children based upon their responses to its 29 items. The PDI was designed for teachers to rate their pupils on 39 specific behaviors. This basic difference between the instruments may explain the weak correlations which were obtained. One would expect some overlap between attitudes and behavior, which was found between these two instruments, but it seems that a stronger correlation should exist between the Demos D Scale and the PDI.

One other step in the validation procedure involved the calculation of the correlation between group membership (dropout and non-dropout groups) and the PDI factors and total scores. These correlations ranged from .37 to .46 for the Overt Disruptive Behavior, Insecurity-Withdrawal, Lack of Goal Orientation, and Antisocial factors and they were significant at the .001 level. This indicates that these four factors discriminated to a moderate degree between the two groups. The Peer Interaction factor and the total score correlations (.16 and .15) with group membership were not significant, and did not seem to discriminate between the two groups.

The reliability of the PDI and its factors was examined in terms of internal consistency using the Alpha Coefficient. The Alpha Coefficients for the five factors ranged from .90 to .98 which seemed to establish a relatively high internal consistency for each factor. The Alpha Coefficient for the entire instrument was .98 which indicated that there may be a common or general factor in the PDI. It could be argued, based upon these Alpha

Coefficients, that there may be only one factor in the PDI; however, there was logical and empirical evidence in the factor analysis results to retain five factors, and the item correlations with their respective factors were higher in every case, except one, than their correlations with the entire instrument. Therefore, it was concluded that more information could be obtained by maintaining the five factors.

The preliminary norms for the initial form of the PDI were established by reporting the means and standard deviations of the total sample, the potential dropout group, and the non-potential dropout group, on the PDI factor and total scores. The mean scores on factors I, II, III, and IV for the potential dropout group seemed to discriminate sufficiently enough between the two groups to warrant normative usage. Factor V and the total PDI mean scores did not appear to discriminate well enough between the two groups to be utilized as normative data. Any conclusions which may be drawn from the comparison of PDI scores of other upper elementary school children with these two norm groups should be tentative until additional research can be conducted with the PDI.

J. Assisting Local Schools in Modifying Business Education Programs. Frank Harwood.

Procedures

This investigation used the tools of descriptive survey normative research, i.e., questionnaires and interviews. In addition to the project director and the three assigned Tupelo vocational teachers representing business, distributive, and trade and industrial education, the investigative team used to gather the field data were vocational teachers and counselors in 18 other high schools, 2 area vocational-technical schools, 1 junior college, and 1 senior college. The original three-member Tupelo field team was expanded to include 23 other research-oriented faculty in 20 other counties in North Mississippi to assure adequate data input within the time parameters imposed.

The teaching experience of members of this team ranged from being in the first year to being in the thirtieth year. With an average of 12 years in teaching, 11 years as vocational teachers, these researchers also averaged more than 5 years in business or management. Three of the investigators had an average of 7 years in full-time guidance responsibilities.

The Tupelo field team received a total of six sets of field demonstration data-gathering interviews. Other research associates were given simulated interviews to prepare them for their field assignments.

A Research Advisory Council was formed principally through the cooperative efforts of the Tupelo administrative and vocational

staff who comprised the local research team. This nine-member Council -- eight of whom were selected by Tupelo School faculty or staff; one executive was chosen by the project director -- had one major function. Its purpose was to provide essential business community reactions to whatever tentative program proposals might be suggested by the findings in this study.

Results

From 428 executive-employee-supervisor interviews involving 160 jobs with 112 employers covering one-tenth of one percent (.1%) of the employed population in the 21-county North Mississippi area included in the study, data were gathered on 6 positions. These were:

Position	Number	Percent
Accountants - Bookkeepers	34	21
Clerks (Office)	45	28
Clerks (Sales)	18	11
Secretaries	34	21
Stenographers	4	3
Administrative/Mgt. Trainees	25	16
Total	160	100

According to the federal Standard Industrial Classification the companies cooperating in this study were as follows:

Classification	Number	Percent
Finance, Insurance, Real Estate	32	20
Manufacturing	50	31
Service	18	11
Agri., Mining, Construction	2	1
Transp., Commun., Utilities	5	3
Wholesale, Retail	33	21
Education	11	7
Government	9	6
Total	160	100

For the 160 positions represented in this study, there was a ratio of one male to three females. This compares with a one to four male-female ratio in the Erickson study, and a one to seven male-female ratio in the entire NOBELS investigation. For the Malsbary study, the male-female ratio was one to nineteen. All of these studies were concerned exclusively with office occupations. However, in the administrative/management category of this study there were 24 men to 1 woman.

The employees interviewed had a modal age of 20, a median age of 23, and a mean age of 21. The mean age for 1,232 workers in the NOBELS study was 21 with modal ages of 20 and 21. Typically, the case studied terminated formal education as a

high school graduate. In terms of time on the job, the mode was 6 months; the median was 14 months; and the mean was 18 months.

The hypothesis on which this investigation was made was that there are business service areas not currently being met in existing curricula. Information relevant to the principal thrust of the study was obtained from employees who were classified by the investigator as administrative or management trainees. Accordingly, the balance of this report will present those essential findings, analyses, recommendations, and other considerations relating directly to this aspect of the research.

The responsibility areas for the administrative or management trainees fit into four broad categories. These include operational management, administrative services routine, marketing-related functions, and accounting-bookkeeping-recordkeeping duties. These inputs, together with the employee-identified educational inadequacies and supervisors' suggestions, provide a basis for getting business executive, professional educator, and publisher reactions.

Evaluation

The Research Advisory Committee of 9 Tupelo executives, plus 6 professional educators from various sections of the country -- California, Colorado, Illinois, and Georgia -- and three publishers, all offered positive, favorable, encouraging responses to the prospective program.

Conclusions

Commonalities of management problems reach to the lowest echelons of management, i.e., the first rung of the management ladder. These positions are typically outside the office and typically are occupied by young men.

The nature of the identified responsibilities is such that the attitudes, knowledge, skills, and understandings required can be developed in a program to meet student and industry needs. With both the relatively recent high school graduate represented in this study and his immediate supervisor providing inputs that are essentially descriptive of business operational and administrative disciplines, the academic implications of responsibility and opportunity are clear.

Vocational business education and the other vocational departments have the joint responsibility to meet these unfilled needs. The opportunity is to develop cooperatively the kinds of programs that will achieve at least three objectives.

Most importantly, the successful development of a program of Training for Realistic Action by Concentrating on Kinetics (T R A C K IV--Management) through Business Operational and Administrative Training (B O A T) can serve some young men in an exciting and meaningful way that is not currently possible.

Secondly, the essential teamwork to develop, teach, and administer a program meeting the needs highlighted in this investigation can provide at least two direct benefits. The vocational teachers involved will come to know in a first-hand way to their students' advantage some of the critical managerial business functions. This bonus to the students will be reflected both in course content and methods used.

The third anticipated major objective would be enhanced by business community goodwill and support. This would come as a consequence of two factors. In the first place, the necessary additional dialogue with members of the business community requiring their inputs essential to the program development is the kind of involvement that generates interest of a high order. Secondly, because successful graduates of the proposed Business Operational and Administrative Training Program can reduce the cost of hiring, training, and retaining prospective first echelon management trainees, a more favorable labor cost factor can help Tupelo employers gain or maintain a competitive edge.

Recommendations

Three areas of service consideration are given attention. First, guidance is the channel through which at least some of the preparatory phases of the proposed new program should be directed. Therefore, Recommendation One is for a beginning. Designate specific organizational responsibility to implement a full program in career guidance for grades 7-8.

Secondly, broad, yet specific, suggestions are offered for a Business Operational and Administrative Training Program. Details are given in the body of this report. Recommendation Two is to designate specific organizational responsibility to initiate the first phase of this program, ninth grade.

Recommendation Three is to encourage through research grants the development of essential materials. Materials are needed for the career guidance elements of this proposed program, grades 7-8, and for the Training for Realistic Action by Concentrating on Kinetics (T R A C K IV -- Management) through Business Operational and Administrative Training (B O A T), grades 9-12. A pilot system, such as the Tupelo Schools could be, will need sufficient research support to implement Recommendations One and Two.

K. Implementing a Career-Centered Curriculum in the Public Schools of Mississippi. James K. Morris.

Procedures

The design adopted for implementing the Career-Centered Curriculum views the student's total school experience as being preparatory for entry into the world of work. The design capitalizes on the traditional curriculum enriching it through the addition of career activities and information.

The structure of the Career-Centered Curriculum is divided into four stages which are sequential in nature. These are the awareness, exploration, preparation, and continuing education stages. Initial exposure in career education is at a broad, general level but narrows itself to intensified study of specific careers eventually leading to career selection, preparation, and entry.

The Career-Centered Curriculum must be viewed as a process as well as a curriculum design. The process begins with elementary students investigating a wide range of occupations. It is from this broad base that selections for more detailed explorations will be made.

Techniques are employed that make career awareness both enjoyable and informative. Some methods used for importing career awareness are occupational games, songs, guest speakers from the community, and job simulations utilizing role playing.

The junior high school years are devoted to exploring the world of work. Students are provided with opportunities to investigate their interests and abilities, to undertake a study of careers, and to participate in career related experiences.

The preparation stage is focused in the high school grades. Preparation is accomplished in various ways utilizing ongoing programs. For the student whose career choice requires a baccalaureate degree, assistance is provided in the selection of proper courses that will lead to entrance into college.

Students who desire to enter the working world after high school can enroll in a vocational education program to receive training. These programs include agriculture, automobile mechanics, building trades, cooperative education, consumer home economics, general metal trades, industrial drafting, industrial electricity, and office occupations.

The program for continuing education exists for those no longer enrolled in regular school programs who desire to learn new skills or update skills they already have. Training programs

are essentially the same in the continuing education stage as they are in the preparation stage. Structurally, programs are open-ended in order to allow trainees to enter at any time and exit upon achievement of a certain level of competency.

Results and Accomplishments

Thirteen new professional level positions were inaugurated to implement the project. Throughout the year, all personnel were engaged in in-service training programs which facilitated the development of the project. The training programs for teachers resulted in the development of career activities to be used in conjunction with existing curriculum materials.

An intensive public relations program was conducted during the year and resulted in a strengthening of the tie between the school and community. Many community members and businesses became actively involved in the Career-Centered Curriculum.

Because of the career education project, students are able to more accurately appraise and accept their own abilities, aptitudes, and interests and have a deeper sociological and psychological readiness for entering the world of work. Exposure to a number of career opportunities, which will help students determine areas of interest, has resulted in a greater appreciation for all socially useful work. Having been involved in decision making activities, students have learned that choice affects outcome.

The fusion of subject matter with career activities and information has aided the teachers in their presentations. Interest, motivation, and relevance are the results of the fusion.

Conclusions and Recommendations

Conclusions and recommendations are as follows:

(1) The Career-Centered Curriculum should be introduced to other school systems.

(2) Provisions should be made for continued teacher in-service training and re-training.

(3) Quarterly joint project staff meetings should be conducted by the State Department of Education.

(4) Teacher training programs should be reorganized to include career education philosophy and techniques of implementation.

(5) Funds should be made available for equipment, resource personnel, visitations to other projects, and transportation.

VI. DISSEMINATION ACTIVITIES

A. Annual Report of the Mississippi Research Coordinating Unit for Vocational-Technical Education (Fiscal Year 1971). James E. Wall and James F. Shill. (Mississippi State University, Research Coordinating Unit, College of Education, Report 8001, Administrative Series 1, July 1971.)

B. Quarterly Evaluation Reports on the Career-Centered Curriculum for Vocational Complexes in Mississippi. James F. Shill. (Mississippi State University, Research Coordinating Unit, College of Education, September and December 1971 and March 1972.)

C. The Career-Centered Curriculum for Vocational Complexes in Mississippi - First Interim Report. J. H. McMinn, J. F. Shill, and J. E. Wall. (Mississippi State Board for Vocational Education, July 1971.)

D. The Career-Centered Curriculum for Vocational Complexes in Mississippi - Second Interim Report. J. H. McMinn, J. F. Shill, and J. E. Wall. (Mississippi State Board for Vocational Education, June 1972.)

E. Images and Perceptions of Vocational Agriculture Programs in Mississippi. R. Glenn Shoemake. (Mississippi State University, Research Coordinating Unit, College of Education, Report 8002, Research Series 2, April 1972.)

F. Quarterly Reports on Mississippi's EPDA Activities. James E. Wall. (Mississippi State University, Research Coordinating Unit, College of Education, September and December 1971 and March and June 1972.)

G. Review and Synthesis of Strategies for Effecting Change In Vocational and Technical Education. James E. Wall (The Ohio State University, ERIC, Information Series No. 59, VT 014 704, April 1972.)

H. "Simulation in Agricultural Mechanics for Special Needs." R. Glenn Shoemake. Printed in Agricultural Education Magazine (Athens, Ohio, Vol. 44, No. 7, January 1972.)

I. "The Case for Career Education." J. Harold McMinn. Reprint from the Mississippi Educational Advance. (Jackson, Mississippi, April 1972.)

J. Research Coordinating Unit personnel utilize professional meetings, workshops, seminars, pre-service and in-service courses as vehicles for dissemination of research findings.

K. All individual requests for research information were complied with during the period, even though some requests were for other than vocational-technical education information. The Mississippi RCU will continue to fill such requests insofar as possible. This is being done in the interest of furthering interdisciplinary and interagency cooperation.

VII. CAPITAL EQUIPMENT ACQUISITION

None

VIII. OTHER ACTIVITIES

The Research Coordinating Unit director is serving as Assistant Dean for Research and Development in the College of Education at Mississippi State University.

The RCU Co-Director is engaged in teaching in the Agricultural Education Department at Mississippi State University.